

EPA's Final NSR Regulations

Clean Air Act Task Force
Permit and Fees Committee
June 19, 2003

NSR Reform Provisions

- Finalized Changes:
 - Baseline Actual Emissions
 - Actual-to-Projected-Actual Applicability Test
 - Plantwide Applicability Limitations (PALs)
 - Clean Unit Test
 - Pollution Control Project (PCP) Exclusion
- Proposed Changes:
 - Routine Maintenance, Repair and Replacement (RMRR)
- Upcoming Proposals
 - Debottlenecking Policy
 - Project Aggregation Policy
 - Allowables PALs

Implementation by States

- For delegated States, new rules became effective March 3, 2003 (60 days from publication in the Federal Register.)
- For SIP-approved States, rule changes due within 3 years from publication in the Federal Register to amend their SIPs or, alternatively, must demonstrate that the State program is at least as stringent as new rules.

State Implementation Issues

- The new rules establish the minimum requirements for PSD/NSR programs. Any approved State or local agency must certify that their program is at least as stringent as the EPA program
- EPA HQ and Regional Offices will determine procedures for certifying programs

Baseline Actual Emissions

Determining the “past actual”
emissions for measuring
emissions increases

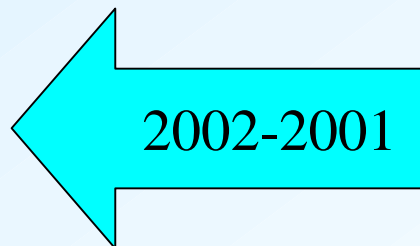
“Actual Emissions”:

Previous Requirements for non-EUSGUs

- Averaging of the annual emissions for a two-year period preceding the project which is representative of normal operations;

OR

- Another period if it is determined to be more representative of operations by the reviewing authority.



“Baseline Actual Emissions”: New Requirements for non-EUSGUs

- Average annual emissions that occurred during any consecutive 24-month period in the past 10 years.
 - » Adjust to reflect current emissions control requirements
 - » Reduce for any emissions that exceeded allowable emissions
 - » Available only if adequate data is available for the selected time period
 - » Use same 24-month period for all emissions units involved in project



Baseline Actual Emissions:

WEPCO Provision for EUSGUs (unchanged)

- Baseline actual emissions are based on any consecutive 24-month period within 5 years immediately preceding the project
- A different period may be used if the reviewing authority agrees that it is more representative of normal operations



Using Baseline Actual Emissions

- Baseline Actual Emissions will be used for:
 - Determining emissions increase resulting from project
 - Computing contemporaneous emissions increase
 - Establishing a PAL
- Old “Actual Emissions” definition retained for:
 - Conducting air quality analyses (NAAQS, PSD increments, AQRVs)
 - Computing offsets required

Actual-to-Projected-Actual Test

Major NSR Applicability Test

Applicability Test: Old NSR Requirements

- Non-EUSGUs and New Emission Units:
Generally use “Actual to Potential Test” - Compare Past Actual Emissions to Future Potential Emissions
- EUSGUs:
The “WEPCO Test” - Compare Actual to Representative Actual Annual Emissions.

Actual-to-Projected-Actual Test

New Requirements

- Apply to all changes at existing emissions units
- Sources must make a projection of post-change annual emissions:
 - » Project maximum annual emissions for the 5-year period after the change; or 10-year period after the change (if the change involves an increase in the emissions unit's PTE or capacity)
 - » may exclude any emissions increase that the emissions unit could accommodate before the change, and that are unrelated to the change (eg. demand growth)
 - » may use potential emissions in making projection (source option; could avoid record keeping)

Recordkeeping and Reporting

- When there is a reasonable possibility that the project could result in a significant emissions increase:
 - EUSGUs:
 - Submit a notification to the reviewing authority before beginning actual construction (*approval not needed to begin construction*)
 - Report annual emissions for five years after the change, or 10 years if change increases the emissions unit's PTE or capacity
 - Non-EUSGUs:
 - Maintain a record of the baseline, projection and annual emissions information for 5 years after the change, or 10 years if the change increases the emission unit's PTE or capacity; and
 - Report to reviewing authority if annual emissions result in a significant emissions increase and are inconsistent with the projection
 - Recordkeeping does not apply if projection is based on PTE

Clean Unit Test

Clean Unit Test

- The Clean Unit Test is an alternative approach to major NSR applicability for modifications.
- If a change does not cause an emissions unit to exceed its permitted allowable emissions, major NSR does not apply.
- If the permitted allowable emissions (or a design parameter upon which these are based) will be exceeded, then the source must determine whether the projected post-change emissions will result in a significant emissions increase and a significant net emissions increase.

Clean Unit Test

What Qualifies as a “Clean Unit”?

- Clean Unit Status is automatic for most emissions units that went through major NSR and are complying with BACT/LAER.
- Clean Unit Status can be granted through a permitting process if the emissions control is:
 - Comparable to BACT/LAER; or
 - Substantially as effective as BACT/LAER
- Emissions control can be add-on controls; pollution prevention; or work practices, but an investment in the control is required to qualify.
- Clean Unit Status available for up to 10 years after applying emissions controls.

Pollution Control Project Exclusion

Pollution Control Project Exclusion

- The PCP exclusion allows a project that reduces emissions of one or more air pollutants regulated under the Act to avoid major NSR review despite causing a significant emissions increase in a collateral pollutant.
- Our previous rules provided a PCP exclusion to only EUSGUs. EPA extended the exclusion to other industries in a policy memo issued in 1994. The final rules replace the existing WEPCO PCP provisions and codify new requirements for all industries.
- The exclusion only applies to activities at existing emissions unit; addition of new emissions units does not qualify for the exclusion.

Pollution Control Projects

What qualifies for the Exclusion?

- To qualify for the exclusion, an activity must pass two tests:
 - Environmentally Beneficial Test (shows benefits outweigh emissions increase)
 - Air Quality Test (shows that project will not cause or contribute to a NAAQS or PSD increment violation, or adversely impact a Class I AQRV)
- Listed Projects - No permit action is required, but a notice must be sent to the Reviewing Authority with information on the project and air quality analysis.
- Unlisted Projects - A permitting action, with public notice and comment, is required to show that both tests are satisfied.

Plantwide Applicability Limitations (PALs)

Based on Actual Emissions
[“Actuals PAL”]

Plantwide Applicability Limitations

- An alternative approach for determining major NSR applicability.
- The final rules address only “actuals PALs”. EPA will be proposing provisions for “allowables PALs” at a later date.
- A PAL is an annual (facility-wide) emission limitation (12-month rolling total, rolled monthly) under which the facility can make any changes without triggering NSR review for that pollutant.
 - Pollutant-specific
 - 10-year term
- A PAL for VOC or NO_x is not allowed in an extreme ozone nonattainment area.

Establishing a PAL

- Determine baseline actual emissions for all existing emissions units using the same consecutive 24-month period for all units. (However, you may add the PTE for any emissions unit that was added to the major stationary source after the selected 24-month period);
- Add the pollutant-specific significant emissions rate to the baseline actual emissions for the PAL pollutant;
- Subtract any emissions from emissions units that operated during the 24-month period and have since been permanently shut down; and
- Establish a step-down PAL if there are any requirements that have an effective date during the term of the PAL.

Reopening PAL permits

- Reviewing Authority shall reopen the PAL permit to:
 - Correct typographical or calculation errors made in settling the PAL.
 - Reduce the PAL to create emissions reductions for offset purposes.
 - Revise the PAL to reflect an increase in the PAL.
- Reviewing Authority may reopen the PAL permit to:
 - Reduce the PAL to reflect newly applicable Federal requirements with compliance dates after the PAL effective date
 - Reduce the PAL consistent with any other requirement that the State may impose under its SIP
 - Reduce the PAL if it determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation.

Increasing a PAL

- Allowed if the increased emissions cannot be accommodated under the PAL, even if all significant and major emissions units were to meet a BACT level of control.
- Emissions units causing the need for an increase (modified or new units) must go through major NSR.
- New PAL based on sum of:
 - Baseline actual emissions of small emissions units;
 - Baseline actual emissions of significant and major emissions units assuming a BACT level of control; and
 - Allowable emissions of new or modified emissions units.

PAL Renewal

- If baseline actual emissions plus significant level are $\geq 80\%$ of current PAL, then PAL may be renewed at current level.
- If baseline actual emissions plus significant level are $\leq 80\%$ then:
 - PAL may be established at a level that is more representative of baseline actual emissions, or a level that is appropriate based on air quality needs or other considerations.
- The new PAL level cannot be higher than the existing PAL (unless PAL increase provisions are met) or the PTE of the source.

PAL Expiration

- Within the timeframe specified for PAL renewals, the source shall submit a proposed allocation to each emissions unit.
- The PA shall decide whether and how the PAL will be distributed and issue a revised permit incorporating allowable limits for each emissions unit.
- Any subsequent physical or operational change at the source will be subject to major NSR review.

PAL Monitoring Requirements

- PAL permit must contain enforceable requirements to determine plantwide emissions (12-month rolling total, rolled monthly).
- A source may use any of the following approaches:
 - Mass balance calculations for activities using solvents or coatings
 - Continuous Emissions Monitoring Systems (CEMS)
 - Continuous Parameter Monitoring Systems (CPMS) or Predictive Emissions Monitoring Systems (PEMS).
 - Emissions Factors.
- If no monitoring data exists for an emissions unit for a time period, the source owner must report the maximum potential emissions without considering enforceable or operating emissions limitations.

Tentative Rule Development Schedule

- April 2004: Draft Rule to NRB
- June 2004 : Public Hearings on Draft rule
- August 2004: Final Green Sheet for rule adoption to NRB
- September-October 2004: Legislative review of final rule
- January 2005: Publication of rule in Admin. Code
- February 1, 2005: Rule effective date